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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,679

09/18/2006

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3813

22045 7590 09/28/2010

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EXAMINER

JOYCE, WILLIAM C

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

09/28/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

This Office Action is in response to the amendment filed July 21, 2010 for the above identified patent application.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “input and output discs are of different sizes” (claims 8 and 18) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 32, the limitation "the larger of the input disc and output disc" lacks proper antecedent basis. It is unclear as to whether applicant intends to define one of the input or output disc being larger than the other of the input or output disc.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 6-15, 17-25, 27-29, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Imanishi (JP 7-280055).

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Imanishi teaches a variator of the toroidal-race rolling-traction type comprising: a rotatably mounted input disc (2); an output disc (4) rotatably mounted coaxially with the input disc; a plurality of rollers (8) transmitting rotation between the input disc and the output disc; a plurality of roller carriages (6), each roller being rotatably mounted on one of the roller carriages, and each roller carriage having a pivoting joint (40,41); a plurality of levers (43a,43b), each connected to the pivoting joint of a corresponding roller carriage; and a plurality of actuators (47), each connected to a corresponding lever for applying a reaction force to the roller carriages, wherein each roller and its associated actuator is connected to a respective lever, each of the plurality of actuators is mounted to the same side of a horizontal plane aligned with and passing through the rotational axis of the variator discs (Fig. 3).

With respect to claims 8 and 18, the newly added limitation defining “the input disc and output discs are of different sizes” does not overcome the prior art.

Referring to Figure 7, Imanishi illustrates the input disc (2) and output disc (4) having a different thickness, and therefore have different sizes. Further, Figures 5-6 show the input disc (2) being configured with a cam device (9) and the output disc not having a cam device, wherein the input disc and output disc have a different configuration and therefore have a different size. Further, Imanishi illustrates in Figures 5-6 the distance between the rotation axis of the input/output discs and the outer surface of the input/output discs being approximately equal to

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the distance between the rotation axis of the input/output discs and the center of the trunnion shaft (5). Now referring to Figure 2, the actuators (47) are positioned farther from the rotation axis of the discs than the center of the trunnion shafts, and therefore the actuators must be positioned farther from the rotation axis than the outer periphery of the discs. Accordingly, the plurality of actuators are located radially outwardly of a common horizontal plane extending parallel to the rotational axis of the input and output discs and tangential to the periphery point of the larger of the input disc and output disc.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imanishi (JP 7-280055).

Imanishi does not disclose a plurality of levers pivotally mounted about a first axis. Imanishi teaches friction rollers disposed in a single toroidal cavity. It was notoriously well known in the art to configure friction rollers in two separate toroidal cavities, wherein the actuators associated with the first toroidal cavity are aligned with the actuators of the second toroidal cavity. It would have been

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obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of levers pivotally mounted about a first axis to actuate a plurality of friction rollers disposed in separate toroidal cavities, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. V. Bemis Co.*, 193 USPQ 8.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imanishi (JP 7-280055) in view of Yamamoto (USP 5,971,886).

Imanishi does not disclose the cylinders disposed in a common cylinder block. The prior art to Yamamoto teaches a common cylinder block (52,62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the actuators of Imanishi with a common cylinder block, as taught by Yamamoto, motivation being to facilitate in the assembly and manufacture of the device.

Allowable Subject Matter

9. Claim 5 is allowed.
10. Claim 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed July 21, 2010 have been fully considered but they are not persuasive.

Applicant argues the claimed invention and Imanishi (JP 7-280055) operate in fundamentally different ways from one another, wherein the transmission of Imanishi is a "ratio-controlled" transmission and the transmission of the present application is a "torque-controlled" transmission. This argument is not commensurate with the scope of the claims. Specifically, the claims of the present application do not define sufficient structure so as to define over the prior art.

The prior art to Imanishi illustrates the newly added limitation defining each roller being mounted on a roller carriage, each roller carriage has a pivoting joint, the actuators acting upon the pivoting joint on each roller carriage via one of the levers. Accordingly, the claims do not define over the prior art.

The arguments filed July 21, 2010 are not persuasive and the claims stand rejected as described above.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William C. Joyce/
Primary Examiner, Art Unit 3656